

ABSTRACT OF THE DISCLOSURE

An engine is supported on a vehicle body frame through an active vibration-isolating device. The vibration of the engine is prevented from being transmitted to the vehicle body frame by controlling the active vibration-isolating device. A speaker is disposed within a vehicle compartment. The noise is reduced by adaptively controlling the speaker based on a rotational speed of the engine and a noise detected by a microphone disposed within the vehicle compartment. Thus, the vibration and noise characteristics of the vehicle can be improved by a synergic effect of reducing both the vibration and the noise. Further, because the microphone is inexpensive and the speaker for an audio set can be used without any modification, the present invention can be achieved with a low cost.